

What is claimed is:

1. A storage apparatus comprising:

a storage control section including a first rack having electrical conductivity, channel control parts housed in the first rack, and disk control parts housed in the first rack, the channel control parts being communicably connected to an information processing apparatus and constructed to receive a data input/output request from the information processing apparatus,

the disk control parts being communicably connected to hard disk drives for storing data and constructed to perform read/write of data from and to the hard disk drives in response to a data input/output request from the information processing apparatus;

a storage drive section including a second rack having electrical conductivity, the hard disk drives, and relay parts for relaying communications between the hard disk drives and the disk control parts, the hard disk drives and the relay parts being housed in the second rack; and

communication cables for communicably connecting the disk control parts to the relay parts, each of the communication cables including a transmission medium through which to transmit data to be read or written by the disk control parts, a first conductor having electrical conductivity and surrounding the transmission medium with an

insulator interposed therebetween, a second conductor having electrical conductivity and surrounding the first conductor with an insulator interposed therebetween, and an electrically nonconductive covering surrounding the second conductor,

the first conductor being electrically conductibly connected to ground potential supply circuits provided in at least either the disk control parts or the relay parts,

the second conductor being electrically conductibly connected to at least one of the first rack and the second rack.

2. A storage apparatus according to claim 1 further comprising a ground potential supply part including a first communication cable clamping part which has electrical conductivity and a first surface, a second communication cable clamping part which has electrical conductivity and is electrically conductibly connected to at least either the first rack or the second rack and has a second surface, and a fixing part which fixes the first communication cable clamping part and the second communication cable clamping part so that the first and second communication cable clamping parts are pressed against each other with the first surface and the second surface facing each other,

each of the communication cables having a portion from which the covering is removed around its periphery,

the portion of each of the communication cables being held by being clamped between the first surface of the first communication cable clamping part and the second surface of the second communication cable clamping part.

3. A storage apparatus according to claim 2, wherein a hollow portion having a shape similar to part of a peripheral shape of the second conductor is formed in at least one of the first surface and the second surface.

4. A storage apparatus according to claim 2, wherein:
the first rack and the second rack are approximately rectangular parallelepipedic;

the storage control section includes the first rack and an approximately rectangular parallelepipedic control box which has electrical conductivity and in which the channel control parts and the disk control parts are housed in a removably inserted state, the control box being housed in the first rack in a state electrically conductible to the first rack;

the storage drive section includes the second rack and an approximately rectangular parallelepipedic disk box which has electrical conductivity and in which the relay parts and the hard disk drives are housed in a removably inserted state, the disk box being housed in the second rack in a state electrically conductible to the second rack; and

the ground potential supply part is provided in a state

electrically conductible to at least one of the control box and the disk box.

5. A storage apparatus according to claim 1, wherein each of the first rack and the second rack is approximately rectangular parallelepipedic and has at least four faces respectively provided with rack covers which respectively include conductive plates having electrical conductivity and approximately hermetically seal each of the first rack and the second rack.

6. A storage apparatus according to claim 5, wherein the rack covers are respectively provided with elastic bodies having electrical conductivity, each of the elastic bodies being disposed to extend along a periphery of a face of a respective one of the rack covers, the face being opposed to any one of the respective faces of either one of the first rack and the second rack.

7. A storage apparatus according to claim 1, wherein:

the first rack and the second rack are approximately rectangular parallelepipedic;

the storage control section includes the first rack and an approximately rectangular parallelepipedic control box which has electrical conductivity and in which the channel control parts and the disk control parts are housed in a removably inserted state, the control box being housed in the first rack in a state electrically conductible to the first

rack;

the storage drive section includes the second rack and an approximately rectangular parallelepipedic disk box which has electrical conductivity and in which the relay parts and the hard disk drives are housed in a removably inserted state, the disk box being housed in the second rack in a state electrically conductible to the second rack; and

a face of the control box through which the channel control parts and the disk control parts are to be inserted and removed is provided with a control box cover which includes a conductive plate having electrical conductivity and approximately hermetically seals the face of the control box through which the channel control parts and the disk control parts are to be inserted and removed.

8. A storage apparatus according to claim 7, wherein the control box cover is provided with an elastic body having electrical conductivity, the elastic body being arranged to surround a periphery of a face of the control box, the face being opposite to the face of the control box through which the channel control parts and the disk control parts are to be inserted and removed.

9. A shielding method for a storage apparatus including a storage control section including a first rack having electrical conductivity, channel control parts housed in the first rack, and disk control parts housed in the first rack,

the channel control parts being communicably connected to an information processing apparatus and constructed to receive a data input/output request from the information processing apparatus,

the disk control parts being communicably connected to hard disk drives for storing data and constructed to perform read/write of data from and to the hard disk drives in response to a data input/output request from the information processing apparatus, and

a storage drive section including a second rack having electrical conductivity, the hard disk drives, and relay parts for relaying communications between the hard disk drives and the disk control parts, the hard disk drives and the relay parts being housed in the second rack,

the shielding method comprising the steps of:

communicably connecting the disk control parts and the relay parts via communication cables each including a transmission medium through which to transmit data to be read or written by the disk control parts, a first conductor having electrical conductivity and surrounding the transmission medium with an insulator interposed therebetween, a second conductor having electrical conductivity and surrounding the first conductor with an insulator interposed therebetween, and an electrically nonconductive covering surrounding the second conductor;

electrically conductibly connecting the first conductor to ground potential supply circuits provided in at least either the disk control parts or the relay parts; and electrically conductibly connecting the second conductor to at least one of the first rack and the second rack.

10. A shielding method for a storage apparatus according to claim 9, wherein the storage apparatus further includes a ground potential supply part including a first communication cable clamping part which has electrical conductivity and a first surface, a second communication cable clamping part which has electrical conductivity and is electrically conductibly connected to at least either the first rack or the second rack and has a second surface, and a fixing part which fixes the first communication cable clamping part and the second communication cable clamping part so that the first and second communication cable clamping parts are pressed against each other with the first surface and the second surface facing each other,

each of the communication cables having a portion from which the covering is removed around its periphery,

the portion of each of the communication cables being held by being clamped between the first surface of the first communication cable clamping part and the second surface of the second communication cable clamping part.

11. A shielding method for a storage apparatus according to claim 10, wherein a hollow portion having a shape similar to part of a peripheral shape of the second conductor is formed in at least one of the first surface and the second surface.

12. A shielding method for a storage apparatus according to claim 10, wherein:

the first rack and the second rack are approximately rectangular parallelepipedic;

the storage control section includes the first rack and an approximately rectangular parallelepipedic control box which has electrical conductivity and in which the channel control parts and the disk control parts are housed in a removably inserted state, the control box being housed in the first rack in a state electrically conductible to the first rack;

the storage drive section includes the second rack and an approximately rectangular parallelepipedic disk box which has electrical conductivity and in which the relay parts and the hard disk drives are housed in a removably inserted state, the disk box being housed in the second rack in a state electrically conductible to the second rack; and

the ground potential supply part is provided in a state electrically conductible to at least one of the control box and the disk box.

13. A shielding method for a storage apparatus according to

claim 9, wherein each of the first rack and the second rack is approximately rectangular parallelepipedic and has at least four faces respectively provided with rack covers which respectively include conductive plates having electrical conductivity and approximately hermetically seal each of the first rack and the second rack.

14. A shielding method for a storage apparatus according to claim 13, wherein the rack covers are respectively provided with elastic bodies having electrical conductivity, each of the elastic bodies being disposed to extend along a periphery of a face of a respective one of the rack covers, the face being opposed to any one of the respective faces of either one of the first rack and the second rack.

15. A shielding method for a storage apparatus according to claim 9, wherein:

the first rack and the second rack are approximately rectangular parallelepipedic;

the storage control section includes the first rack and an approximately rectangular parallelepipedic control box which has electrical conductivity and in which the channel control parts and the disk control parts are housed in a removably inserted state, the control box being housed in the first rack in a state electrically conductible to the first rack;

the storage drive section includes the second rack and

an approximately rectangular parallelepipedic disk box which has electrical conductivity and in which the relay parts and the hard disk drives are housed in a removably inserted state, the disk box being housed in the second rack in a state electrically conductible to the second rack; and

a face of the control box through which the channel control parts and the disk control parts are to be inserted and removed is provided with a control box cover which includes a conductive plate having electrical conductivity and approximately hermetically seals the face of the control box through which the channel control parts and the disk control parts are to be inserted and removed.

16. A shielding method for a storage apparatus according to claim 15, wherein the control box cover is provided with an elastic body having electrical conductivity, the elastic body being arranged to surround a periphery of a face of the control box, the face being opposite to the face of the control box through which the channel control parts and the disk control parts are to be inserted and removed.